

Appendix B
Hazardous Materials Group Factual
Interview Notes

Wilmer, TX
HWY-05-MH-035

He was not aware that Brighten had evacuated until he heard the news.

He also stated that a medical E cylinder will last about 5 hours when used at 2 ltrs per minute.

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Rail, Pipeline and Hazardous Materials Safety

ORAL INTERVIEW

Person Conducting Interview: **Place of Interview:** **Date:**

Name James E. Henderson

Dallas, TX to

9/28/05

Code RPH -30

Houston, TX

Title Haz. Mat. Accident Inv.

Type of Interview:

Location of Interview: (Check one)

☒ Telephone ☐ Personal

☐ Office ☒ Field

Name of Person Interviewed:

Title:

Greg Gist

Branch Operations Manager

Name and Address of Firm:

Type of Operation:

Airgas Puritan Medical
Houston, TX

Medical gas supplier

(Statements are paraphrased)

They fill oxygen cylinders for Tallwood. They check the test date before filling and will send it for retest if it needs it. They do not do their own retesting. They do not track the cylinders by their serial numbers. They use the lot number for the gas placed into the cylinder. A sticker is applied to each cylinder recording the lot of gas supplied. They would not be able to tell when a cylinder was filled by its serial number.

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Rail, Pipeline and Hazardous Materials Safety

ORAL INTERVIEW

Person Conducting Interview: **Place of Interview:** **Date:**

Name James E. Henderson

Dallas, TX to

9/28/05

Code RPH -30

Houston, TX

Title Haz. Mat. Accident Inv.

Type of Interview:

Location of Interview: (Check one)

☒ Telephone ☐ Personal

☐ Office ☒ Field

Name of Person Interviewed:

Title:

Kelsey Folger

Manager

Name and Address of Firm:

Type of Operation:

LifeGas, LLC
Houston, TX

Medical gas supplier

(Statements are paraphrased)

They fill oxygen cylinders for Tallwood. They check the test date before filling and will send it for retest if it needs it. They do not do their own retesting. They do not track the cylinders by their serial numbers. They use the lot number for the gas placed into the cylinder. A sticker is applied to each cylinder recording the lot of gas supplied. They would not be able to tell when a cylinder was filled by its serial number.

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Rail, Pipeline and Hazardous Materials Safety

ORAL INTERVIEW

Person Conducting Interview: **Place of Interview:** **Date:**

Name Thomas J. Lynch Dallas, TX to 9/28/05
Code _____ Irving, TX
Title Senior Haz Mat Enforcement Spec
PHMSA/ DOT

Type of Interview: **Location of Interview: (Check one)**

☒ Telephone ☐ Personal ☐ Office ☒ Field

Name of Person Interviewed: **Title:**

Danny Swaim Driver

Name and Address of Firm: **Type of Operation:**

Matheson TriGas Gas supplier
Irving, TX

(Statements are paraphrased)

- The cylinders retrieved from the Dallas County lot were all cleaned and manifolded together.
- He checked the cylinders for leaks and found some were leaking gas through the regulator opening.
- The total pressure on the manifold before emptying was 200 psi.
- The cylinders were returned to the secured lot between 6 and 6:30 pm of the day they were picked up.

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Rail, Pipeline and Hazardous Materials Safety

ORAL INTERVIEW

Person Conducting Interview:	Place of Interview:	Date:
Name <u>James E. Henderson</u>	Dallas, TX to	9/28/05
Code <u>RPH -30</u>	Riverside, CA	
Title <u>Haz. Mat. Accident Inv.</u>		

Type of Interview: **Location of Interview:** (Check one)

☒ Telephone ☐ Personal ☐ Office ☒ Field

Name of Person Interviewed:	Title:
Lee Burch	Product Compliance Manager

Name and Address of Firm:	Type of Operation:
Luxfer Manufacturing Riverside, CA	Aluminum cylinder manufacturer

(Statements are paraphrased)

The aluminum in typical DOT 3AL cylinders will be molten at 1100 degrees F. However, the aluminum loses its strength at much lower temperatures than that. At about 350 degrees it will take many days before it loses enough strength to fail. At 500 degrees it will take many hours; perhaps two days. At 600 to 700 degrees it will take only minutes. He has seen similar failures to what I described on cylinders involved in house fires. If the fire is on the first floor and the cylinder is on the second being heated as the floor heats up it is a race between the loss of strength of the aluminum and the heating of the oxygen raising the pressure in the cylinder. If the aluminum weakens first the cylinder fails, however, if the pressure gets high enough the frangible disk fails relieving pressure and the cylinder melts later.

Luxfer's green paint is designed to change to either an orange or brown at about 500 degrees F. That is a temperature that would be harmful even with a short term exposure.

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Rail, Pipeline and Hazardous Materials Safety

ORAL INTERVIEW

Person Conducting Interview: **Place of Interview:** **Date:**

Name James E. Henderson

Dallas, TX to

9/29/05

Code RPH-30

McLean, VA

Title Haz. Mat. Accident Inv.

Type of Interview:

Location of Interview: (Check one)

☒ Telephone ☐ Personal

☐ Office ☒ Field

Name of Person Interviewed:

Title:

Barbara Bennett

Director of Risk Management Finance

Name and Address of Firm:

Type of Operation:

Sunrise Senior Living
McLean, VA

Senior Living Facilities

(Statements are paraphrased)

Sunrise owns and operates Brighten Gardens in Houston. Two patients on the bus were using oxygen. One was using the oxygen supplied through a contract between Sunrise and Tallwood Medical Equipment. The other was using oxygen supplied through a private contract with SOS Air in Houston, TX [(218) 933-1956].

The nurses on the bus said that they took two "sleeves" of oxygen cylinders on the bus; one contained 9 bottles and one contained 6 bottles. Initially there were only two bottles in the passenger compartment. As the cylinders were emptied, the bus was stopped and the cylinders were traded with full cylinders underneath. The head nurse believed that they were using the cylinders up too quickly and was worried that they would not make it to Dallas. She was unaware that there was a second sleeve of 6 full bottles.

She was in contact with headquarters using her computer and was told that they could get additional bottles in Bryant College Station, TX. They pulled off the road to discuss detouring to Bryant College Station to pick up additional cylinders when one of the nurses told the head nurse about the 6 additional bottles.

They then determined that a detour to pick up additional

cylinders was unnecessary and they continued their journey up I-45.

At the time of the accident the nurses were fairly certain that all of the cylinders underneath were "empty" and that there were some empty bottles and the remaining full bottles in the passenger compartment.

She said that the employees seemed confident with handling the cylinders and made sure to keep them in their sleeves or tied down.

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Rail, Pipeline and Hazardous Materials Safety

ORAL INTERVIEW

Person Conducting Interview: **Place of Interview:** **Date:**

Name James E. Henderson

Dallas, TX to

12/6/05

Code RPH -30

Houston, TX

Title Haz. Mat. Accident Inv.

Type of Interview:

Location of Interview: (Check one)

☒ Telephone ☐ Personal

☒ Office ☐ Field

Name of Person Interviewed:

Title:

Joe Armstrong

Area Operations Manager

Name and Address of Firm:

Type of Operation:

Airgas Puritan Medical
Houston, TX

Medical gas supplier

(Statements are paraphrased)

When filling the medical E oxygen cylinder they fill to 2015 psig at 70 deg. F. They use a pressure temperature chart to determine the pressure at 70 deg. F. when filling at other temperatures. A calibrated pressure gauge is attached to the cylinder to measure the oxygen pressure and a thermometer is used to measure the temperature of cylinder body. Then the settle pressure is measured on one cylinder from every lot after it has sat for 2 to 24 hours to ensure the pressure is accurate.

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Rail, Pipeline and Hazardous Materials Safety

ORAL INTERVIEW

Person Conducting Interview:	Place of Interview:	Date:
Name <u>James E. Henderson</u>	Washington, DC to	1/10/06
Code <u>RPH-30</u>	Houston, TX	
Title <u>Haz. Mat. Accident Inv.</u>		

Type of Interview:	Location of Interview: (Check one)
<u>X</u> Telephone <u> </u> Personal	<u>X</u> Office <u> </u> Field

Name of Person Interviewed:	Title:
Thomas Lynch	Senior Hazardous Materials Enforcement Sp.

Name and Address of Firm:	Type of Operation:
PHMSA	Federal Government
Office of Hazardous Materials	
Enforcement	
Houston, TX	

(Statements are paraphrased)

We are not initiating any enforcement action, at this time,
concerning the transportation of the oxygen cylinders on the bus.